CLAIMS

1. A method of screening a human subject for susceptibility to viral infection and/or pre-disposition to developing severe disease following viral infection, which method comprises screening for the presence or absence in the genome of the subject of one or more polymorphic variants or mutations in the gene encoding CD45 or of one or more polymorphic variants in linkage disequilibrium with or in close physical proximity to a polymorphic locus in the gene encoding CD45.

2. A method according to claim 1 which comprises screening for the presence or absence in the human subject of the C77G mutation in the gene encoding CD45, wherein subjects having at least one mutant allele are scored as being more susceptible to viral infection and/or more pre-disposed to developing severe disease following viral infection, as compared to subjects who do not carry a C77G mutation.

3. A method of screening a human subject for susceptibility to viral infection and/or pre-disposition to developing severe disease following viral infection which comprises evaluating the pattern of CD45 mRNA expression in the subject, wherein the presence of an abnormal pattern of CD45 mRNA expression associated with the presence of a C77G mutant allele of the gene encoding CD45 is taken as an indication that the subject is more susceptible to viral infection and/or more pre-disposed to developing severe disease following viral infection, as compared to subjects who do not carry a C77G mutation.

4. A method of screening a human subject for susceptibility to viral infection and/or pre-disposition to developing severe disease following viral infection which comprises evaluating the pattern of CD45 protein expression in the subject, wherein the presence of an abnormal pattern of CD45 protein expression associated with the presence of a C77G mutant allele of the gene encoding CD45 is taken as an indication that the subject is more susceptible to viral infection and/or more pre-disposed to developing severe disease following viral infection, as compared to subjects who do not carry a C77G mutation.

5. A method according to any one of claim 1 wherein the viral infection is infection with a human immunodeficiency virus.

6. A method according to claim 5 wherein the human immunodeficiency virus is HIV-1.

7. A method according to any one of claim 1 wherein the viral infection is infection with EBV.

8. A method according to any one of claim 1 wherein the viral infection is infection with poliovirus.

9. A method of screening a human subject for susceptibility to developing immunodeficiency disease other than severe combined immune deficiency and/or predisposition to a developing a more severe form of immunodeficiency disease, which method comprises screening for the presence or absence in the genome of said subject of one or more polymorphic variants or mutations in the gene encoding CD45 or of one or more polymorphic variants in linkage disequilibrium with or in close physical proximity to a polymorphic locus in the gene encoding CD45.

10. A method as claimed in claim 9 which comprises screening for the presence or absence in the human subject of the C77G mutation in the gene encoding CD45, wherein subjects having at least one mutant allele are scored as being more susceptible to developing immunodeficiency and/or more likely to develop a severe form of immunodeficiency than subjects who do not carry a C77G mutation.

11. A method of screening a human subject for susceptibility to developing immunodeficiency disease other than severe combined immune deficiency and/or predisposition to a developing a more severe form of immunodeficiency disease, which method comprises evaluating the pattern of CD45 mRNA expression in the subject, wherein the presence of an abnormal pattern of CD45 mRNA expression associated with the presence of a C77G mutant allele of the gene encoding CD45 is taken as an indication that the subject is more susceptible to developing immunodeficiency and/or more likely to develop a severe form of immunodeficiency than subjects who do not carry a C77G mutation.

12. A method of screening a human subject for susceptibility to developing immunodeficiency disease other than severe combined immune deficiency and/or predisposition to a developing a more severe form of immunodeficiency disease, which method comprises evaluating the pattern of CD45 protein expression in the subject, wherein the presence of an abnormal pattern of CD45 protein expression associated with the presence of a C77G mutant allele of the gene encoding CD45 is taken as an indication that the subject more susceptible to developing immunodeficiency and/or more likely to develop a severe form of immunodeficiency than subjects who do not carry a C77G mutation.

13. A method of screening a human subject for susceptibility to haemophagocytic lymphohistiocytosis, which method comprises screening for the presence or absence in the human subject of the C77G mutation in the gene encoding CD45, wherein subjects having at least one mutant allele are scored as being more susceptible to haemophagocytic lymphohistiocytosis, as compared to subjects who do not carry a C77G mutation.

14. A method of investigating the genetic basis of the disease haemophagocytic lymphohistiocytosis in a human subject previously diagnosed with haemophagocytic lymphohistiocytosis, which method comprises screening for the presence or absence in the human subject of the C77G mutation in the gene encoding CD45, wherein the presence of at least one mutant allele is taken as an indication that the mutation may contribute to the genetic basis of haemophagocytic lymphohistiocytosis in the subject.